

Exhibit 7

Filed Under Seal

56452
Metadata

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End Bates	GOOG-DOJ-AT-02261790
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OS Saved Date/Time	
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TaskAds&Survey bidding optimization

Launch doc

Contributors:

April 2021

Status: **paused**

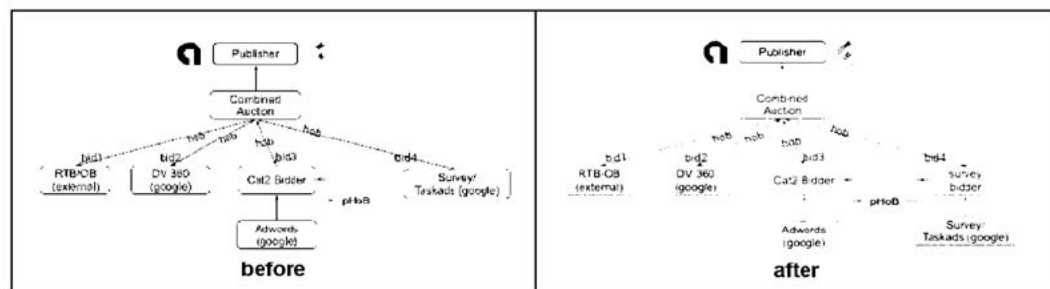
Self-link:

Design doc:

Introduction

After AdMob & ADX moved to the 1p auction world, continuing bidding in max bid isn't the optimal strategy any more as the buyer needs to pay their max bid. In contrast, in the previous 2p world, bidding in one's max bid is the dominant strategy as they only need to pay the 2nd highest bid. To save cost in the 1p world, bid shading and Bernanke 1p are used to increase buyers' surplus, aka. saving cost for buyers. By shading bids, one bids in between their max bid and 2nd highest bid, so that they can still win the bid, but pay less. By using Bernanke 1p with fixed revshare, we will bid higher to increase win rate. By using Bernanke 1p, we can bid higher (or take a lower margin) on competitive queries and pay less (or take a higher margin) on less competitive queries to increase win rate.

Note that we still survey buyers are charged using fixed margin in cost logic. Dynamic margin computed in cost logic (Bernanke) does not apply to this optimization. Bernanke is only used to modify bids, potentially above survey buyers' max bid, to increase win rate. Note that survey buyers need to pay for increased cost using fixed margin, i.e. not sharing margin pool with other buyers.



Experiment setup

Rasta stats

link



Survey winner CPM change



Commented [28]: Working with Survey team on this

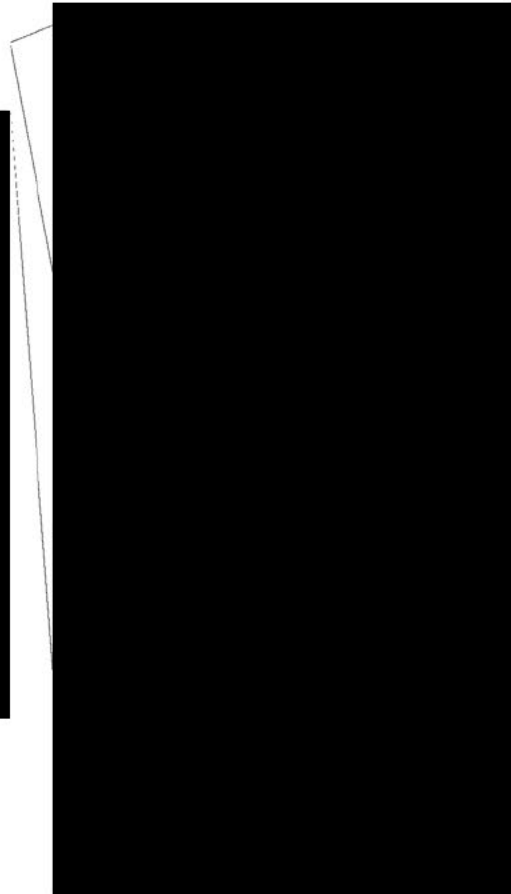
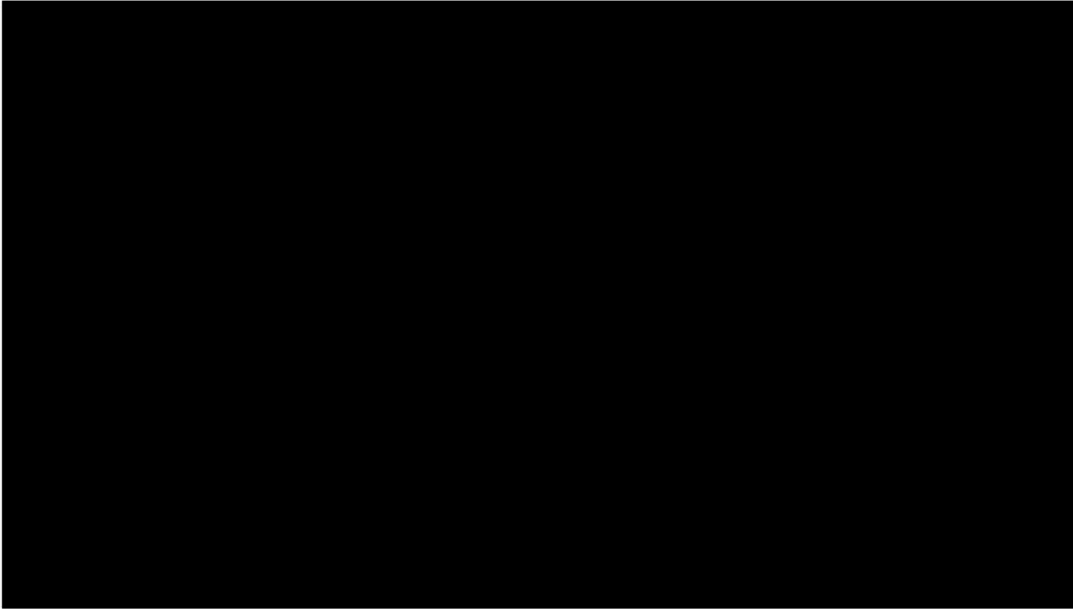
Commented [29]: added at the bottom

Commented [37]: I think this is the right



Breakdown by max bid bucket & survey type

Rewarded



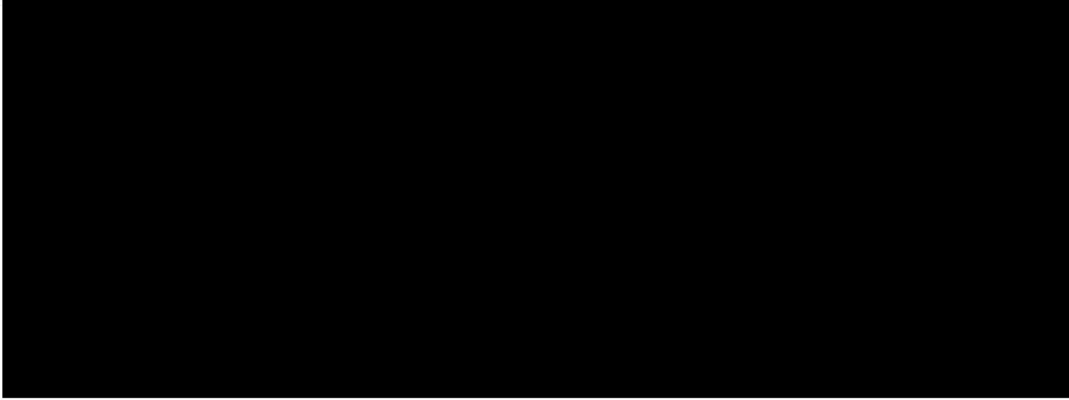
Interstitial



Margin validation

Script





Raw stats

